

Macarthur Memorial Park, Varroville

Preliminary Test Excavation Report

Report to Catholic Metropolitan
Cemeteries Trust
October 2017



 artefact

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1.0 INTRODUCTION

1.1 Proposed Works

Catholic Cemeteries and Crematoria/Catholic Metropolitan Cemeteries Trust proposes to develop cemetery parklands within the study area. The cemetery parklands will consist of 136,000 burial spaces, landscaped public parklands, chapels and condolence rooms, vehicle access roads and pedestrian footpaths.

The proposed use of the site over time has been divided into five cemetery use stages (Stages 1-5). Each stage will be gradually enacted over 150 years, with Stages 1 and 2 being developed in the next five years and Stages 3-5 being developed for the remainder of this period. At present, the proponent is seeking Development Application (DA) approval for Stages 1-5. Construction activities such as the construction of roads and landscaping works will take place across the entire site at varying times.

1.2 The Study Area

The study area is located within a rural setting at 166 -176 St Andrews Road, Varroville and forms part of what was the original 1,000 acres Varroville Estate (c.1810). The study area situated in the City of Campbelltown Local Government Area in the Macarthur region (or 'Scenic Hills') of south-western Sydney.

The Hume Highway lies to the south of the study area with rural and residential properties located along the northern and eastern boundaries. St Andrews Road bounds the study area to the west. The Scenic NSW Equine Centre (formally known as Scenic Hills Riding Ranch) borders the study area to the east and was part of the original grant. The study area is approximately 113.37 hectares (ha) and comprises the following four lots:

- Lot 22 DP 564065
- Lot B DP 370979
- Lot 1 DP 218016.

The study area surrounds and excludes the approximately 8 ha 'Varroville House' lot (Lot 21 DP 564065) which is listed on the Stage Heritage Register (SHR) and is also identified as a local heritage item on the Campbelltown Local Environmental Plan District 8 (Central Hills Lands). Lots 1 and 22 (along with Lot 4 DP 239557 and Lot 21 DP 564065) were recently listed on the Campbelltown LEP as an item of Historic Significance (I105).

The Office of Environment and Heritage (OEH) provided notice of a proposal to extend the SHR curtilage of Varroville House during the Aboriginal test excavation program. The proposed curtilage incorporated several of the testing areas outlined in the methodology. Following consultation with OEH, approval to continue the testing program within the proposed curtilage was granted. It is expected that should the expanded curtilage be approved, changes to the proposed design and subsequent proposed mitigation measures may be required.

1.3 Previous Archaeological Assessment

Artefact Heritage (2013) was engaged by Urbis on behalf of the proponent to conduct an Aboriginal heritage due diligence investigation of the study area. That investigation recorded eight Aboriginal sites and large areas of potential archaeological sensitivity where Aboriginal objects were likely to be located beneath the ground surface. In accordance with the OEH *Due Diligence Code of practice for*

the Protection of Aboriginal Objects in New South Wales (2010), Artefact recommended that further archaeological investigation would be required within the property.

Urbis, on behalf of the proponent, subsequently engaged Artefact Heritage (2014) to prepare an Archaeological Survey Report (ASR) for Stage 1 of the proposal in accordance with the OEH Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (Department of Environment, Climate Change & Water [DECCW] 2010) (the OEH Code of Practice). The ASR identified three Aboriginal sites and two areas of Potential Archaeological Deposit (PAD). Artefact was then engaged by Urbis on behalf of the proponent to prepare an ASR for the entirety of the study area. The extended ASR identified 17 new recorded sites.

1.4 Report Authorship

This report was written by Ryan Taddeucci (Heritage Consultant, Artefact Heritage), Alyce Haast (Heritage Consultant, Artefact Heritage) and Julia McLachlan (Heritage Consultant, Artefact Heritage). Vanessa Edmonds (Principal, Artefact Heritage) reviewed this report and provided management input.

Figure 1: Study area. Base map source. SixMaps.



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2.0 BACKGROUND

2.1 Historical and Archaeological Contexts

Aboriginal people traditionally lived in small family or clan groups that were associated with particular territories or places. The language group spoken in the Campbelltown area is thought to have been Dharawal (Tindale 1974). The Dharawal language group is thought to have extended from the Shoalhaven River, north to Botany Bay and then inland to Camden. The Darug language is thought to have extended from the western side of the Georges River to Appin and Picton and as far west as the Blue Mountains (KARI 2015). Gandangara is said to be the language of the mountain people", from the Blue Mountains to the Nattai and Burratorang Valleys and as far south as Goulburn (KARI 2015).

There is some evidence that Aboriginal people around the Camden/Campbelltown area spoke a distinctly separate language and their tribal area was known as Cubbitch-Barta after its white pipe clay (Russell 1914). Government records from the 1830s and 1840s identify an Aboriginal group known as the Cobbiti Barta as associated with the Camden area (JMcDCHM 2007:21).

Historical records show that Gandangara people visited the Campbelltown area. It is not known whether these visitations represented recent displacement patterns as a result of European colonisation or were part of a long term interaction with the Dharawal (Karskens 2010: 496).

In the early 1800s relationships between the Aboriginal people of the area and the European settlers were in general amicable. Grace Karskens notes several examples of close relationships between land owners and local Aboriginal people, including John Kennedy who gave the Dharawal protection on Teston Farm at Appin in later, not so peaceful, times (Karskens 2010).

Relations between Aboriginal people and colonists did not remain amicable. A sustained drought during 1814 and 1815, and continued disenfranchisement lead to tensions between farmers and Aboriginal people who remained to the southwest of Sydney. Aboriginal people were accused of stealing corn and potatoes and spearing cattle. A number of farmers were killed on their properties. In a dispatch Governor Macquarie wrote that 'The Native Blacks of this country...have lately broken out in open hostility against the British Settlers residing on the banks of the River Nepean near the Cow Pastures'. Aboriginal people were targeted and it was ordered that Aboriginal men be strung from trees when they were killed as an example (Turbet 2011: 234).

Traditional activities such as corroborees continued in the years following first settlement. As documented by the Macarthurs, corroborees took place on their property. Corroborees also took place at Denham Court, located to the northeast of the subject site (Liston 1988: 24). As noted by Liston (1988: 24) '...in March 1818 James Meehan marked out some land on the Macarthur estate for Aborigines who wanted to live there under the protection of the Macarthurs.'

3.0 METHODOLOGY

Aboriginal test excavation of the Macarthur Memorial Park (Varroville) was carried out in accordance with the *Macarthur Memorial Park Aboriginal Test Excavation Methodology* (Artefact Heritage 2017) and the OEH Code of Practice (DECCW 2010).

3.1 Aims

Test excavation programmes are intended to facilitate the assessment of archaeological significance by obtaining quantifiable data. The test excavation aimed to target landforms that were identified as having higher potential to contain archaeological material. These landforms were identified through examination of previous predictive models and use of the sensitivity mapping produced by Artefact (2015). Landform sensitivity mapping and locations of known Aboriginal sites was overlaid with concept designs, to determine areas which would be subject to impact through the proposed works. As a result, 12 areas were tested based on the above factors (Figure 2).

3.2 Strategy

Twelve testing locations were established within areas of low and moderate archaeological sensitivity, including areas surrounding previously identified artefact concentrations and across a representative sample of identified landform features. Nine of the primary testing locations were designated as landform based testing, two were identified based on the location of known sites in order to test their extent, and one was established in the area of low potential to substantiate the hypothesis.

One hundred and fifty-five hand excavated pits were distributed across the 12 testing areas (TA) within the study area. Each pit was 500 mm x 500 mm, and where required, expanded to a maximum of four contiguous units with a total area of one square metre. Test pits were placed along transects within the testing locations at 10 m intervals using the baseline/offset technique to form a grid. Where this was not possible, the pit was offset from the transect. The grid was labelled using the XY system (e.g. X 1000, Y 1010). The location of each excavation unit was recorded using a hand-held non-differential GPS, and the magnetic bearing of the first transect recorded using a compass. In accordance with the Code of Practice, the initial excavation unit in each area was excavated in 50 mm spits. Subsequent excavation units were excavated in 100 mm spits to the base of the artefact bearing deposit, generally B Horizon clays.

A context sheet for each excavation unit was completed in the field. Details recorded included date of excavation, name of excavators, depth, number of buckets and soil description. One representative section wall from each excavation unit was scale drawn, and photographs were taken of each section wall and base. Levels were taken at each excavation area using an arbitrary datum. Additionally, pH and Munsell soil colour was determined on a representative sample at each testing area.

All retrieved deposit from each excavation unit was placed in buckets and transported to a sieve area. All retrieved deposit was wet sieved using 3 mm sieve plates. All Aboriginal objects retrieved during the course of test excavation were washed and placed in re-sealable bags for further analysis and recording.

Figure 2: Testing area locations. Base map source. SixMaps.



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4.0 EXCAVATIONS RESULTS

4.1 Excavation Unit Characteristics

4.1.1 Landform

The study area is approximately 113.37 ha. It consists of a large hill located to the north, and another to the east, joined by a ridge. Several spurs slope from the hilltops to the east, west and south. Between these spurs form the natural drainage channels across the site from which the six artificial dams have been constructed. Both the upper and lower slopes have been used for grazing and farming in recent years. A summary of the landform features is shown in Table 1.

Table 1: Summary of testing area landform features

Testing area (TA)	Landform
TA1	Situated on a spur with a steep inclination. This spur slopes south from the main hill that is located to the north of the study area. The spur is bounded by steep slopes to its east and west that form a catchment of two drainage channels. Trees were absent on the spur however, trees densely covering the ridge was located 20 m north of TA1
TA2	Situated on another spur running parallel to TA1. The spur comprised of a moderate inclination to the south with steep slopes to the east and west. Trees were sparse in the location of the pits however the dense tree coverage of the hill was situated approximately 20 m north of TA2
TA3	Comprised of a lower slope with a gradual inclination to the south. The area had a steep slope to its west, leading to a moderately incised drainage channel lined with trees. Otherwise, the area was generally devoid of trees
TA4	Located north of the cattle pen, comprised of the mid slope of the spur on which TA1 was located. The landform gradually sloped to the south with moderate inclination to the east and west. The area was generally devoid of any trees.
TA5	Situated on a flat area with a very gradual slope to the east, toward the adjacent artificial dam. The dam was located in a natural drainage channel. TA5 contained few trees, mostly young eucalypts and a vehicle track intersected the testing area.
TA6	Comprised of a mid-slope with moderate inclination to the south. The slope continued south into the dam. Small clusters of trees were situated to the west and south.
TA7	Situated on both a lower slope and floodplain. The slope was moderate and inclined to the west onto the floodplain. The floodplain was situated east of a north-south incised drainage channel. The area was located south of an artificial dam. It is likely that that the construction of the dam obstructed the drainage channel, forcing it to recede, thereby exposing much of the incised channel.
TA8	Consisted of a moderate north-south slope with a narrow break of slope intersecting the testing area. A steep slope to the north-east descends into a well incised drainage channel. Dense clusters of trees are located to the north, south, and along the drainage channel. The testing area itself was devoid of trees.
TA9	Located on the moderate to steep mid-slope, declining west from the ridgeline associated with high potential. This test area location was based on previous identification of artefact within the vicinity.
TA10	Located on the lower slope, adjacent to a deeply incised drainage channel. The testing area was situated on a gradual slope to the east.

Testing area (TA)	Landform
TA11	Situated on a moderately steep spur descending west from the eastern hill. The hill above was heavily eroded with many exposed gravels and ochre. A north south running gravel track intersected the hill and spur, truncating the original landform. This test area location was based on previous identification of artefact within the vicinity.
TA12	Located to the south of a deeply incised channel. The testing area was places on the lower slopes declining to the west. The area was surrounded by few trees but was mostly situated in open area. This location considered to have low archaeological potential.

4.1.2 Spit Depths

The highest artefact count from a single excavation unit across the study area was 107 artefacts recovered from spit 2. Spit 1 featured 54 artefacts and spit 3 featured 22. Generally, artefact counts dropped dramatically at depths above 300mm with spit 4 recovering one artefact and spit 5 recovering two.

Table 2: Summary of artefact densities

Spit	Average depth	Artefacts count
1	0-100 mm	54
2	100-200 mm	107
3	200-300 mm	22
4	300-400 mm	1
5	400-500 mm	2
6	500-600 mm	0

4.2 Artefact Analysis

4.2.1 Distribution and Density

A total of 184 artefacts were retrieved from 155 excavation pits, measuring 500 mm x 500 mm. Test excavation was focused on 12 testing areas, Table 3 includes a summary of artefacts recovered from each test area.

The average density of artefacts across the test excavation was 4.7 artefacts per square metre. Average density varied slightly across testing areas, with TA7 exhibiting the lowest mean artefact density for the artefact yielding test areas.

Table 3: Summary of artefact densities across testing areas

Testing Area	Number of test pits	Artefact Count	Area size (Square metre)	Artefacts per square metre	Average number of artefacts per pit
Area 1	6	0	1.5	0.0	0.0
Area 2	6	0	1.5	0.0	0.0

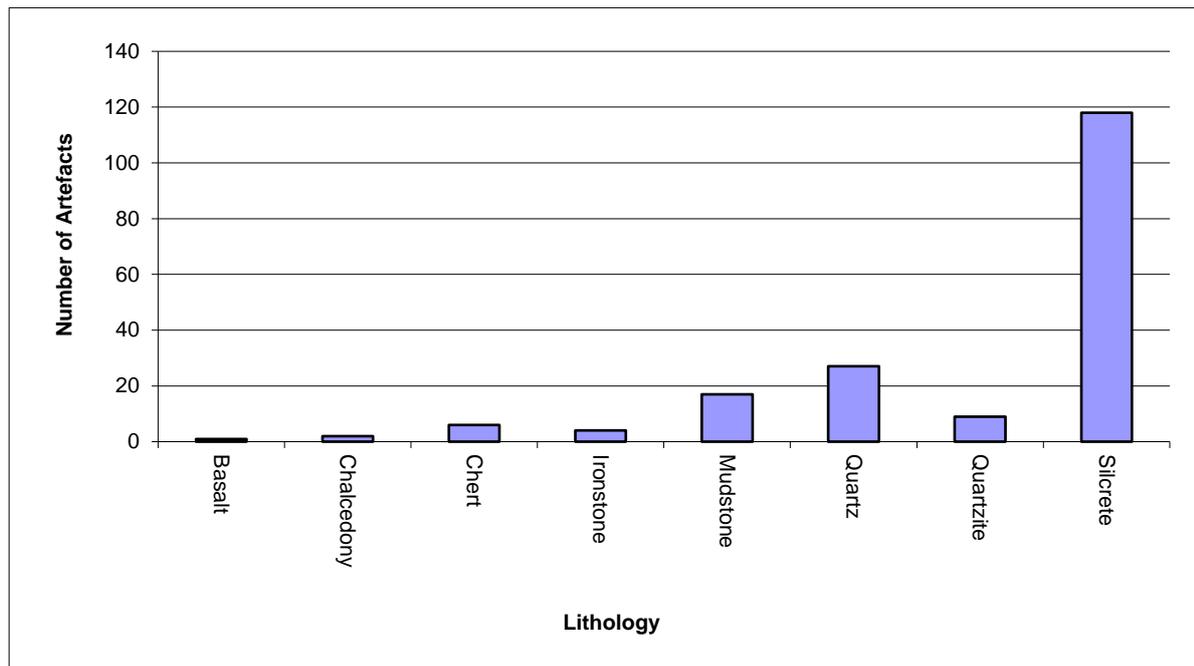
Testing Area	Number of test pits	Artefact Count	Area size (Square metre)	Artefacts per square metre	Average number of artefacts per pit
Area 3	8	9	2.0	4.5	1.1
Area 4	33	63	8.3	7.6	1.9
Area 5	17	22	4.3	5.2	1.3
Area 6	21	38	5.3	7.2	1.8
Area 7	12	5	3.0	1.7	0.4
Area 8	13	0	3.3	0.0	0.0
Area 9	12	16	3.0	5.3	1.3
Area 10	13	16	3.3	4.9	1.2
Area 11	6	0	1.5	0.0	0.0
Area 12	8	15	2.0	7.5	1.9
Total	155	184	38.8	4.7	1.2

4.2.2 Raw Material Types

Eight raw material types were identified within the retrieved test excavation assemblage with silcrete the predominant raw material (n=118, 64.1 per cent). High proportions of mudstone (n=17, 9.2 per cent) and quartz (n=27, 14.7 per cent) was also identified.

Table 4: Raw material types

Lithology	Artefact count	Percentage (%)
Basalt	1	0.5
Chalcedony	2	1.1
Chert	6	3.3
Ironstone	4	2.2
Mudstone	17	9.2
Quartz	27	14.7
Quartzite	9	4.9
Silcrete	118	64.1
Total	184	100

Figure 3: Proportional distribution of raw material types across entire site

4.2.3 Cortex

A total of 12 artefacts were identified to feature cortex on their dorsal side. One artefact featured riverine cortex, while the remaining 11 featured terrestrial cortex. The appearance of two cortex types within an assemblage indicates that the raw material used for artefact manufacture was sourced from two different locations.

The levels of cortex identified three artefacts as products of primary stage reduction. The level of cortex combined with the presence of negative flake scars identified two artefacts as the product of secondary stage reduction. Nine artefacts featured cortical platforms.

4.2.4 Artefact Type

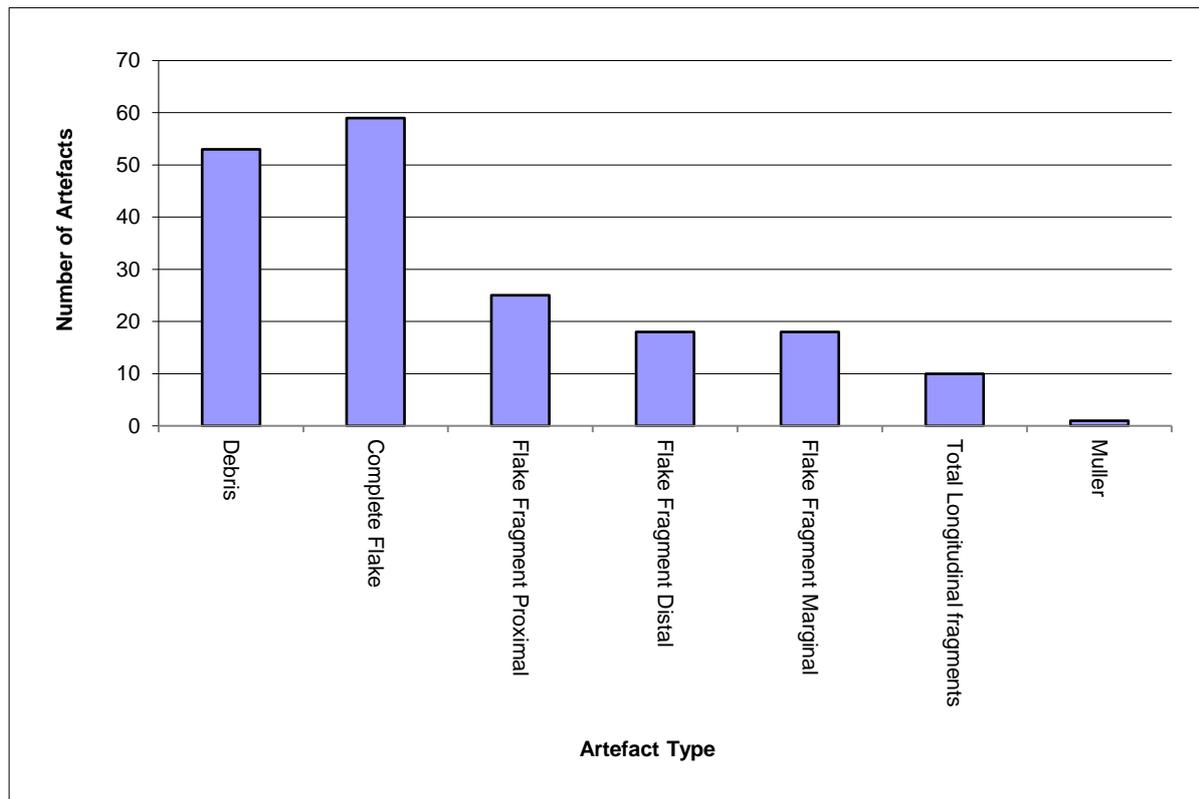
The artefact assemblage consisted primarily of complete flakes (n=59, 32.1 per cent) and debitage (n=53, 28.8 per cent). Broken flakes including proximal flake fragments (n=25, 13.6 per cent) distal (n=18, 9.8 per cent), marginal (n=18, 9.8 per cent), and longitudinal flake fragments (n=10, 5.4 per cent). A single muller was also recovered as part of the assemblage (n=1, 0.5 per cent). The high proportions of debitage and frequent occurrences of longitudinal flake fragments, indicated that reduction may have occurred on site. However, cores and high portions of cortex are usually indicative of reduction areas. These artefacts may not appear in the assemblage due to sampling bias.

Table 5: Artefact types across testing areas

Typology	Artefact count	Percentage (%)
Debitage	53	28.8
Complete Flake	59	32.1
Flake Fragment Proximal	25	13.6

Typology	Artefact count	Percentage (%)
Flake Fragment Distal	18	9.8
Flake Fragment Marginal	18	9.8
Longitudinally broken left	10	5.4
Muller	1	0.5
Total	184	100

Figure 4: Proportional distribution of artefact types



4.2.5 Artefact Size

Meaningful interpretations relating to artefact size cannot be made relating to fragmented artefacts, as it is difficult to determine the full metrics of an artefact that is incomplete. Artefacts which are the product of early stage reduction tend to be short and wide while artefacts that are products of latter stage reduction tend to be long and thin. The mean length for the complete flakes is 11.7 mm and the width is 11.5 mm. The average length to width ration across the site is 1.2 mm. This indicates that artefacts across the site tend to be the product of latter stages of reduction. This is consistent with the previously noted low levels of cortex.

A summary of artefact size across testing areas is provided in Table 6.

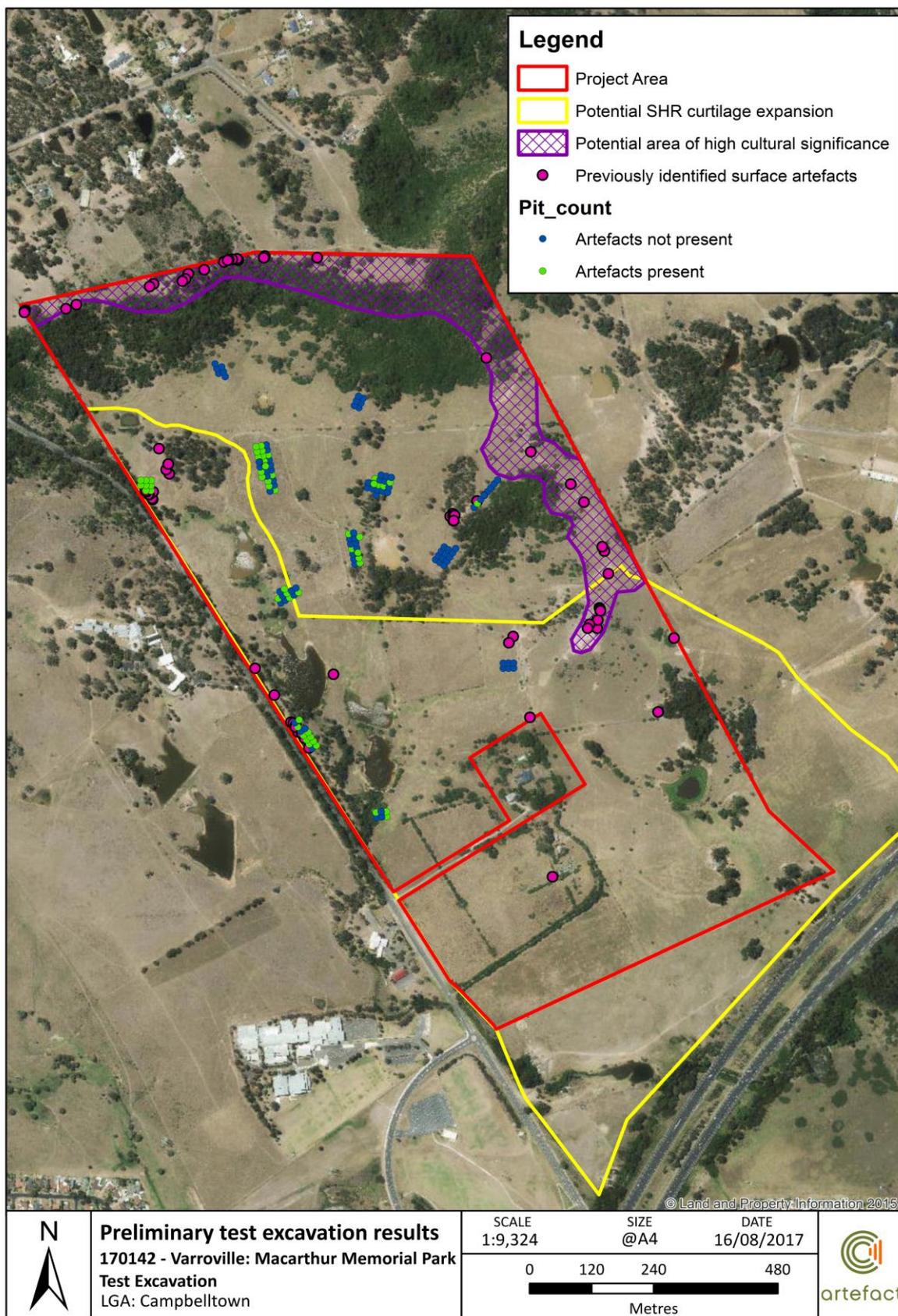
Table 6: Artefact size attributes

Typology	Number	Mean	Max	Min	SD
Complete Flake Length	59	11.7	24.9	3.4	5.5
Complete Flake Width	59	11.5	88.2	4.6	10.9
Complete Flake Thickness	59	3.2	18.4	0.7	2.6
Complete Flake Length/Width Ratio		1.2	2.8	0.1	0.6

4.3 Cultural Values

During excavation Glenda Chalker (CBNTCAC) identified the eastern ridgeline within the property as an area of cultural sensitivity. During test excavation Glenda requested that her son Daniel Chalker attended site as he had previous cultural associations with the site. Consultation is ongoing regarding the extent of this area of cultural sensitivity.

Figure 5: Preliminary test excavation results. Base map source. SixMaps.



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5.0 ARCHAEOLOGICAL IMPLICATIONS

Artefact Heritage is presently in the process of preparing a full Aboriginal Archaeological Test Excavation Report (ATER), which details the full results of the field investigations. Further analysis and interpretation of the testing results will be available in this document.

Previous assessment of the study area has identified 29 surface artefact sites within the study area. Several of these have been identified as part of two site complexes identified across the northern and eastern ridgeline. During test excavation, these ridgelines were identified as having cultural significance.

Test excavation was undertaken within 12 testing areas based on identified landforms within the study area. Eight areas within the testing program identified Aboriginal objects. In general, testing identified a low density artefact scatter with isolated areas of high density deposits across the majority of tested landforms. It is expected that this distribution of Aboriginal objects is replicated across large portions of the remainder of the study area.

In consultation with the local Aboriginal community the results of the test excavation and ASR will be used to provide an updated assessment of the archaeological sensitivity and significance of the study area. The identified significance of Aboriginal sites within the study area will be used to guide recommendations regarding appropriate mitigation measures for sites which cannot be avoided as part of works.

An Aboriginal Heritage Impact Permit (AHIP) will be required prior to the commencement of works within the study area. Following completion of the ATER, Artefact Heritage will be working with the proponent to commence the AHIP application process for sites that cannot be avoided as part of works. This process will include the preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and ongoing consultation with the Aboriginal community.

6.0 REFERENCES

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